F H W A REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES CONVERSION OF THE EXISTING INTERSECTION CONTROL BEACON TO A FULL-TRAFFIC-ACTUATED SIGNAL AT THE INTERSECTION OF U.S. 50 AND MD 565/LANDING NECK ROAD IN TALBOT COUNTY. THE UPGRADE WILL BE TEMPORARY AND LAST FOR THE LIFE OF THE BRIDGE RECONSTRUCTION PROJECTS ALONG MD 333 AT TRIPPE CREEK AND PEACH BLOSSOM CREEK. U.S. 50 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH THE U.S. 50 APPROACHES OPERATING CONCURRENTLY AND THE MD 565/LANDING NECK ROAD APPROACHES OPERATING CONCURRENTLY.

TIME BASED COORDINATION WILL BE PROVIDED BETWEEN THIS INTERSECTION AND THE U.S. 50 AND MD 322 (SOUTH) SIGNALIZED INTERSECTION.

AN OPTICOM DETECTOR SYSTEM WILL BE PROVIDED FOR FIREHOUSE PRE-EMPTION OF THE MD 565 MOVEMENT (PHASE EIGHT).

CONTROLLER REQUIREMENTS

INSTALL AN EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID-STATE, DIGITAL CONTROLLER WITH FIVE, 2-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP, OPTICOM CARD RACK (NO. 560), OPTICOM DISCRIMINATOR MODULE (NO. 562), "D" PANEL, AND ASSOCIATED HARNESSES, IN A POLE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410)787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

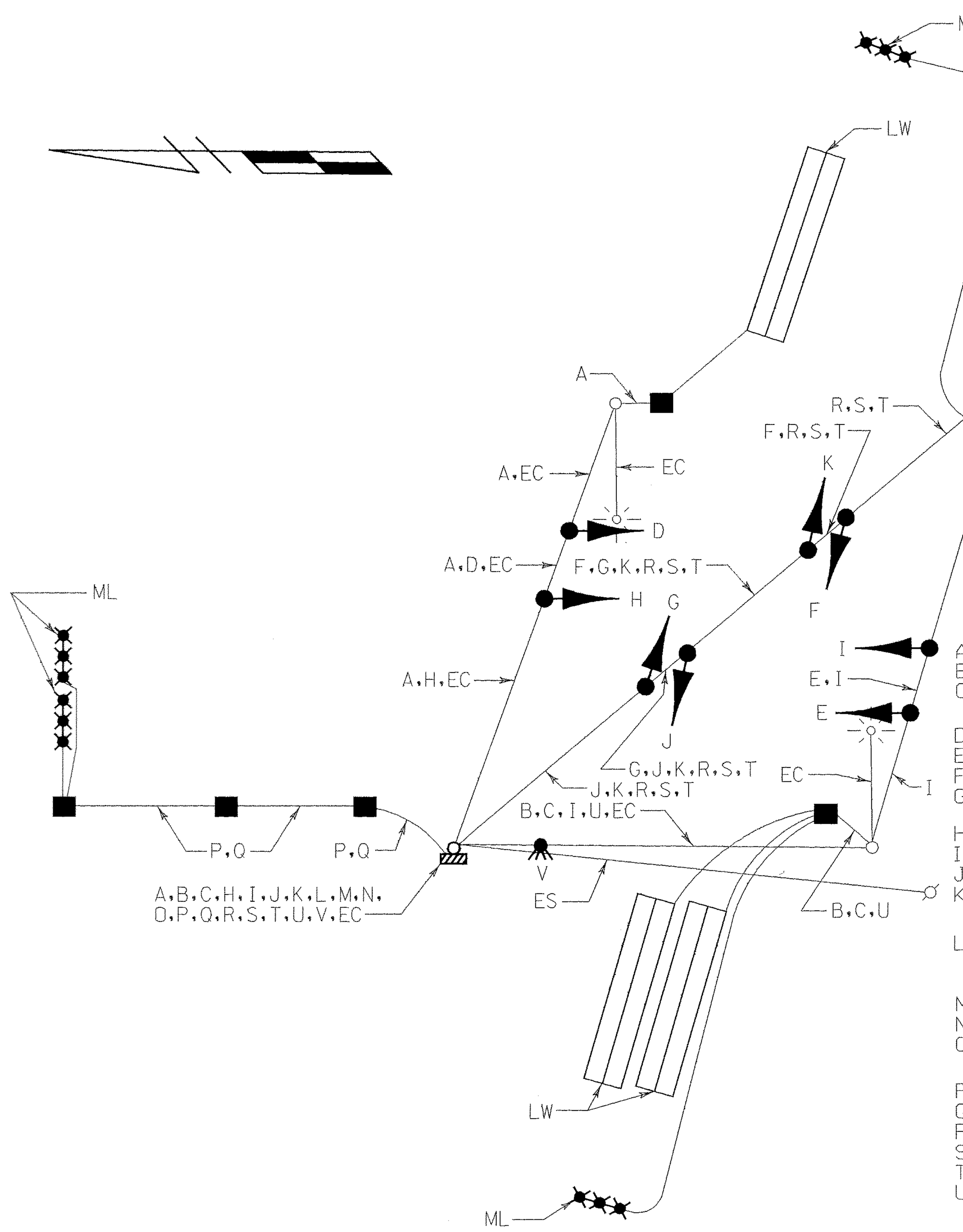
ITEM NO.	QUANTITY	DESCRIPTION
9001	8 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR SPAN WIRE MOUNTING AND TUNNEL VISORS
9003	1 EACH	OPTICOM DETECTOR EYE (NO. 511)
9006	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID-STATE, DIGITAL CONTROLLER WITH FIVE, 2-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP, OPTICOM CARD RACK (NO. 560), OPTICOM DISCRIMINATOR MODULE (NO. 562), "D" PANEL, AND ASSOCIATED HARNESSES, HOUSED IN A POLE MOUNTED CABINET.
9011	6 EACH	MICROLOOP PROBE SET WITH 1000 FT. LEAD-IN
9012	194 S.F.	SHEET ALUMINUM SIGNS
		– 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST, U.S. 50, LEFT ARROW" (36" X 75") POLE MOUNT
		– 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, U.S. 50, RIGHT ARROW" (24" X 51") POLE MOUNT
		– 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, U.S. 50, LEFT ARROW" (36" X 75") POLE MOUNT
		– 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST, U.S. 50, RIGHT ARROW" (24" X 51") POLE MOUNT
		– 6 EACH W3-3 (48" X 48") SIGN, WITH "TEMP/NEW" PANEL (30" X 30") AND FLAGS – GROUND MOUNT

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
5005	180 L.F.	24 IN. PERMANENT PREFORMED PAVEMENT MARKING TAPE
8011	8 EACH	INSTALL SIGNAL HEAD
8014	1 EACH	INSTALL OPTICOM DETECTOR EYE
8015	6 EACH	INSTALL MICROLOOP PROBE SET
8018	1 EACH	INSTALL CONTROLLER AND CABINET-POLE MOUNT
8022	700 L.F.	FURNISH AND INSTALL SAWCUT
8024	60 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT, FLEXIBLE, NON-METALLIC CONDUIT (DETECTOR WIRE SLEEVE)
8025	820 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
8035	9 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8040	80 L.F.	FURNISH AND INSTALL 4-CONDUCTOR OPTICOM DETECTOR CABLE
8043	1050 L.F.	FURNISH AND INSTALL LOOP WIRE (NO. 14 A.W.G.) ENCASED IN 1/4 IN. FLEXIBLE TUBING
8044	690 L.F.	FURNISH AND INSTALL 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G., ALUMINUM SHIELDED)
8047	170 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
8048	750 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 A.W.G.)
8052	20 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8053	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 1 CONDUCTOR (NO. 4 A.W.G. – THHN/THWN)
8054	220 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS – 4 IN. X 4 IN.
8056	194 S.F.	INSTALL GROUND MOUNTED SIGN
8064	LUMP SUM	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
8067	1 EACH	USE EXISTING DISK AND AS-BUILT TRAFFIC CONTROL DEVICES
NEG.	2 EACH	REMOVE "STOP" SIGN FROM EXISTING SUPPORTS
NEG.	2 EACH	REMOVE "STOP AHEAD" SIGN AND SUPPORTS
NEG.	4 EACH	ADJUST EXISTING SPAN

WIRING DIAGRAM



LEGEND

- A, B, C – 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED)
- D, E, F, G – 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- H, I, J, K – 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- L – STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- M, N, O – 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- P, Q, R, S, T, U – MICROLOOP PROBLE LEAD-IN
- V – 4-CONDUCTOR OPTICOM DETECTOR CABLE
- ⌖ – 3/4" X 10' GROUND ROD (TO BE INSTALLED IN HANDHOLE)
- ES – EXISTING OVERHEAD ELECTRIC SERVICE
- LW – LOOP WIRE (NO. 14 A.W.G.)
- ML – MICROLOOP PROBE
- EC – EXISTING CABLE TO BE USED
- ◀ – OPTICOM DETECTOR EYE

PHASE CHART

	1 (R,Y,G)	2 (R,Y,G)	3 (R,Y,G)	4 (R,Y,G)	5 (R,Y,G)	6 (R,Y,G)	7 (R,Y,G)	8 (R,Y,G)
PHASE 2 + 6	G	G	G	G	R	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	R
PHASE 4 + 8	R	R	R	R	G	G	G	G
4 + 8 CHANGE	R	R	R	R	Y	Y	Y	Y
PRE-EMPTION	R	R	R	R	G	G	R	R
CHANGE	R	R	R	R	Y	Y	R	R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

Whitman, Requardt and Associates
Engineers and Planners
2315 Saint Paul Street
Baltimore, Maryland 21218
(410) 235-3450

REVISIONS
(A) 5-1-96 CONVERT INTERSECTION CONTROL BEACON TO FULLY ACTUATED SIGNAL SHA. NO. 5-TA358A51 / TA358B51 FAP NO. BR-1183(010)05
TMZ

APPROVALS

ASSISTANT DIVISION CHIEF

ASST. DISTRICT ENGINEER, TRAFFIC

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, OFFICE OF TRAFFIC & SAFETY

REVISIONS

LOG MI. 20005014.65

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET
U.S. 50 AND MD 565/LANDING NECK ROAD

DATE:	6-19-96	DRAWN BY:	S. BLOSS	F.A.P. NO.		PLAN SHEET NO.:	SHEET NO.
SCALE:	NONE	DESIGNED BY:	T. ZAYDEL	S.H.A. NO.			
APPROVED BY:		CHECKED BY:	T. HANNAN	COUNTY	TALBOT	TS-3363A GI	___ OF ___